



PERIODIC REVIEW

**Meany Tower Hotel,
aka University Tower Hotel,
Hotel Deca
Facility Site ID#: 15719255**

**4507 Brooklyn Avenue NE,
Seattle, Washington**

Northwest Region Office

TOXICS CLEANUP PROGRAM

June 2010

1.0 INTRODUCTION.....	1
2.0 SUMMARY OF SITE CONDITIONS	2
2.1 Site Description and History	2
2.2 Site Investigations and Sample Results	2
2.3 Cleanup Actions	2
2.4 Cleanup Levels.....	7
2.5 Restrictive Covenant.....	8
3.0 PERIODIC REVIEW.....	10
3.1 Effectiveness of completed cleanup actions	10
3.2 New scientific information for individual hazardous substances for mixtures present at the Site	10
3.3 New applicable state and federal laws for hazardous substances present at the Site	10
3.4 Current and projected Site use	11
3.5 Availability and practicability of higher preference technologies	11
3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels	11
4.0 CONCLUSIONS.....	12
4.1 Next Review.....	12
5.0 REFERENCES.....	13
6.0 APPENDICES.....	14
6.1 Vicinity Map	15
6.2 Site Plan	16
6.3 TPH-Dx Concentration Map.....	17
6.4 Environmental Covenant	18
6.5 Photo log	26

1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup Site conditions and monitoring data to ensure that human health and the environment are being protected at the Meany Tower Hotel (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under the Voluntary Cleanup Program. The cleanup actions resulted in concentrations of petroleum hydrocarbons remaining at the Site which exceed MTCA cleanup levels. The MTCA cleanup levels for soil are established under WAC 173-340-740. The MTCA cleanup levels for groundwater are established under WAC 173-340-720. WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a Site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree
- (c) Or, as resources permit, whenever the department issues a no further action opinion;
- (d) and one of the following conditions exists:
 - 1. Institutional controls or financial assurance are required as part of the cleanup
 - 2. Where the cleanup level is based on a practical quantitation limit
 - 3. Where, in the department's judgment, modifications to the default equations or assumptions using Site-specific information would significantly increase the concentration of hazardous substances remaining at the Site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the Site;
- (b) New scientific information for individual hazardous substances or mixtures present at the Site;
- (c) New applicable state and federal laws for hazardous substances present at the Site;
- (d) Current and projected Site use;
- (e) Availability and practicability of higher preference technologies; and
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The Department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site Description and History

This cleanup involved an underground storage tank (UST) closure and independent cleanup action of soils containing gasoline range petroleum hydrocarbons at the Edmond Meany Hotel located at 4507 Brooklyn Avenue NE, in Seattle, Washington. The property was owned by Starwood Hotels and Resorts Worldwide, Inc. (Starwood) prior to its sale to Washington Hotel, LLC in July 2000. Six USTs and associated petroleum contaminated soils were removed as part of the purchase and sale requirements established between Starwood, the buyer, and the lender. Another sale took place in 2005 to LHO Badlands, LLC, an affiliate of LaSalle Hotel Operating Partnership, LP, and the hotel was renamed Hotel Deca.

The property is approximately 39,200 square feet and is occupied by one hotel building and two parking areas. The main parking area is located directly adjacent to the north of the hotel building. A second satellite parking lot is located on a separate parcel to the north, and is separated from the main parking lot by a small parcel, also utilized for parking. The property is bounded on the north and west by parking areas, to the south by NE 45th Street and to the east by Brooklyn Avenue NE. The Edmond Meany Hotel includes a restaurant and conference facility.

The property is located in the SE $\frac{3}{4}$ of Section 8, Township 25 North, Range 4 East, Seattle, King County, Washington. Topographic coverage of the Site vicinity is provided by the U.S. Geologic Survey, Seattle North, Washington, 7.5 minute quadrangle, dated 1968 photo-revised 1949. The elevation of the property is approximately 175 to 200 feet above mean sea level. The property is generally flat with a local topographic gradient slope of approximately 300 feet per mile to the south. In addition, there is a topographic low located approximately $\frac{1}{2}$ block to the west. The nearest surface water is Portage Bay, which is approximately $\frac{3}{4}$ mile to the south of the Site.

2.2 Site Investigations and Sample Results

The UST removal and soil cleanup action, and a prior subsurface investigation, were performed by URS Corporation (formerly Dames & Moore) and their subcontractors on behalf of Starwood. Washington Hotel, LLC concurred with the scope and technical approach, and their consultant, James Ruef of Environmental Associates, Inc. (EA), monitored the field work on their behalf. Previous Phase I Environmental Site Assessments (ESA) by Dames & Moore (1990, 1991) and EA (2000a) identified that two gasoline stations were formerly located on the property parking lot. The south station, formerly known as the Elmer Deibler Auto Parking and Gasoline Station was operated from 1934 to 1946. We understand that Texaco owned and/or operated the north station from approximately 1949 to 1969. A geophysical survey of the property by EA (2000b) identified six probable USTs in association with the two former gasoline stations. Three 2,000-gallon gasoline USTs and a 6,000-gallon diesel UST were identified at the former Texaco

gasoline station location. Two 500-gallon USTs were identified at the former Deibler gasoline station location.

Prior Phase I ESAs performed on the property (Dames & Moore, 1990 and 1991) identified a former gasoline station and one 3,000-gallon reserve fuel oil UST located in the south parking lot as potential items of environmental concern. According to the 1991 Phase I ESA, Dames & Moore completed a Precision Leak Test for Meany Tower Hotel in February 1990, which tested the integrity of the fuel oil UST. The UST passed the test. The Phase I ESA also includes results from a limited groundwater investigation to assess the potential for on-Site migration of groundwater contamination from leaking USTs at a gasoline station located less than 500 feet north, topographically upgradient from the property. A temporary groundwater monitoring well was installed and groundwater was sampled for total petroleum hydrocarbons (TPH) and primary gasoline constituents of benzene, toluene, ethylbenzene, and xylene (BTEX). Analytical results indicated no detectable BTEX and only 0.11 mg/L of TPH, which is below the current MTCA Method A groundwater cleanup level. A second well boring was attempted west of the northern former gasoline station based on the assumption that groundwater flow toward the topographic low west-southwest of the property. However, this boring was terminated prior to encountering groundwater due to the presence of cobbles and a mechanical failure on the drill rig. According to the UST Closure and Site Assessment report by Dames & Moore (1997), the 3,000-gallon reserve heating oil UST was removed in July 1996, following a subsequent 1996 leak test which indicated a small leak in the remote fill line, vent line and/or supply line to the tank. The tank and associated piping were removed and transferred off-Site for recycling and/or disposal. Two small corrosion holes were noted on the top of the tank, none were noted in the piping. Approximately 5 feet of piping was left in place due to excavation shoring restrictions. Approximately 15 cubic yards of petroleum impacted soils and 36 cubic yards of clean soil was excavated and disposed off-Site. Soil samples collected during the post excavation were analyzed for TPH as diesel and heavy oil range hydrocarbons. Analytical results of the soil samples obtained from the northeast and west sidewall samples were at levels above the MTCA Method A soil cleanup level of 200 mg/kg for oil and diesel range TPH applicable at the time the tank was removed. All other post-excavation soil samples had TPH concentrations well below the 200 mg/kg soil cleanup level or TPH was not detected.

URS performed a subsurface soil and groundwater investigation in June 2000, to assess the soil and groundwater quality in the vicinity of the suspected USTs and associated pump islands beneath the parking lot of the property. Twelve borings were completed to collect soil and/or groundwater samples. Two borings were completed as groundwater monitoring wells (MW-1/B7 and MW-2/B9). Soil and groundwater samples were analyzed for gasoline, diesel, and oil range TPH and BTEX. Selected soil samples were analyzed for lead, and four groundwater samples were analyzed for chlorinated volatile organic compounds. Analytical results of the 22 soil samples collected indicated only four samples (one each from borings B-2, B-4, B-5, and B-7) contained concentrations of gasoline range TPH (TPH-G) above the MTCA Method A (100 mg/kg) soil cleanup level; however, all the samples were below the maximum MTCA Method B residential (2,000 mg/kg) and commercial (9,600 mg/kg) soil cleanup levels for human ingestion. Of the four samples, two had benzene (borings B-4 and B-5) and one had xylene (boring B-2) detected above MTCA Method A but below MTCA Method B soil cleanup levels. Diesel range

TPH (TPH-D) was detected at boring B-10, adjacent to the 6,000-gallon diesel UST, at a concentration of 79 mg/kg. This concentration is well below MTCA Method A (200 mg/kg) and B soil cleanup levels. TPH-G and BTEX were not detected in the soil adjacent to the 6,000-gallon UST. Lead concentrations in the three soil samples analyzed contained concentrations less than or equal to 8.6 mg/kg, which is below MTCA B soil cleanup level of 250 mg/kg. Based on the analytical results, two areas were identified where soil concentrations were detected above the applicable MTCA Method A soil cleanup levels. The areas were located on the south side of the three 2,000-gallon USTs cluster and the south side of the two suspected USTs located near the main hotel entrance driveway. However, the two samples with the highest TPH-G concentrations (borings B-2 and B-7) were further analyzed for extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH) and the results were used to demonstrate that these samples meet the MTCA Method B soil cleanup criteria per the Interim TPH policy.

Groundwater samples were collected from five selected borings and two groundwater monitoring wells. The samples were analyzed for TPH, chlorinated volatile organic compounds, and BTEX. Analytical results for the groundwater samples indicate TPH-G and BTEX concentrations at four locations (borings B-2, MW-1/B-7, MW-2/B-9, and B-10) at levels above MTCA Method A and B groundwater cleanup levels. Affected groundwater at borings B-2, MW2/B-9, and B-10 are interpreted to have resulted from the area of the three suspected Texaco 2,000-gallon USTs and associated pump island. The affected groundwater at boring MW1/B-7 is likely to have resulted from the area of the two suspected Deibler 500 gallon USTs and associated pump island. Chlorinated organic compounds were not detected in any of the groundwater samples analyzed.

Based on soils encountered during a subsurface soil and groundwater investigation by URS in June 2000 and the Voluntary Cleanup Action, the subsurface soils of the property in the vicinity of the USTs consist of approximately 9 to 10 feet of brown, silty sand fill with trace gravel. Underlying the fill is dense glacial till consisting of fine to medium sand, with trace silt and trace gravel to a depth of at least 30 feet belowground surface (bgs), the maximum depth explored. A denser zone of gravel and cobbles was encountered between 14 and 20 feet bgs. The soils grade gray at a depth of approximately 10 to 13 feet bgs.

2.3 Cleanup Actions

The soil cleanup action consisted of the excavation and removal of petroleum contaminated soils in the vicinity of three 2,000-gallon gasoline USTs, one 6,000-gallon diesel UST, and two 500-gallon gasoline USTs and associated piping and pump islands at the property. The USTs were associated with two former gasoline stations located on the current parking lot for the hotel. URS and Emerald Services Inc. (Emerald) conducted the UST removal and soil cleanup action between July 10 and July 14, 2000. There were three separate excavation areas to remove the USTs and petroleum contaminated soil: north excavation (three gasoline USTs and associated pump island), central excavation (diesel UST), and south excavation (two gasoline USTs and associated pump island). An estimated total of approximately 340-375 cubic yards (490 tons) of petroleum contaminated soil were excavated from the north and south excavations of the former gasoline USTs. Petroleum contaminated soil was not encountered in the central excavation. The

three excavation areas were backfilled with clean fill and uncontaminated soil previously removed from the excavation. Emerald transported the excavated soils off-Site for thermal treatment and subsequent incorporation into cement at the LaFarge, Inc. facility in Seattle, Washington. The petroleum affected soil has been sufficiently removed from the Site to meet the applicable MTCA Method B soil cleanup levels based on the results of field screening, soil sample analyses for samples collected from the base and lateral limits of the excavations, the prior investigation analytical results, and Ecology's Interim Policy, with the exception of a minimal volume in the south excavation located adjacent to the hotel entrance canopy. This canopy made further excavation of the soil in this area impracticable.

Dames & Moore and their subcontractor, Glacier Environmental, removed a 3,000-gallon heating fuel UST and associated petroleum contaminated soil in 1996. The UST was situated at the southeast corner of the hotel building beneath the sidewalk adjacent to NE 45th Street. An estimated 8 cubic yards of petroleum contaminated soil was left in place due to the presence of utilities and the street, and limitations imposed by the City of Seattle Engineering Department (Dames & Moore, 1997).

It was URS' professional opinion that (1) the soil cleanup actions implemented and the current conditions are protective of the present and future public health, safety, and welfare and environment from potential impacts of the remaining residual TPH detected in soils, (2) there is a very low potential for significant future migration of the residual TPH in soil to groundwater and from groundwater to Portage Bay and Union Bay of Lake Washington, the nearest receptor; and (3) further remedial actions related to soil are not warranted because the petroleum hydrocarbon sources (former USTs, piping, and pump islands) have been removed, the property is zoned as commercial, TPH concentrations remaining in the soil are below the MTCA Method B cleanup levels per Ecology's Interim TPH Policy, except for minimal volumes at two locations outlined above, and the soils with residual TPH are covered by asphalt and concrete.

During the URS subsurface investigation, groundwater was encountered at a depth of approximately 21 feet bgs in the northern section of the main parking area (borings B-2, MW2/B-9, B-12). Groundwater in the southern parking area was encountered at approximately 27.5 feet bgs (borings MW 1/B-7 and B-10). Minor perched water was locally encountered on the native fill (boring B-2). Based on the measured water levels, local topography, and groundwater elevation data for nearby gasoline stations with leaking USTs, the groundwater flow at the Site is inferred to be to the southeast toward Portage Bay and Union Bay of Lake Washington. Currently there is no known beneficial use of groundwater for drinking water in the vicinity; thus, the closest potential receptor is surface water in Portage Bay/Union Bay.

During the north excavation, groundwater that accumulated in the excavation and nearby well MW-2/B9 was pumped using a vacuum truck as an interim groundwater cleanup action. With respect to groundwater, it was recommended that three additional monitoring wells be installed. Based on the Voluntary Cleanup Action report, Ecology provided a NFA letter (June 24, 2002) for soil only with a restrictive covenant for areas with residual petroleum contaminated soil that could not be readily removed without impacting the Site underground utilities and infrastructure.

Groundwater assessment and monitoring was approved in an October 2, 2000 plan (URS, 2000b).

During the previous subsurface investigation at the Site, two monitoring wells (MW-1 and MW-2) were installed directly downgradient of the excavations that contained petroleum contaminated soil. The original MW-2 well was destroyed or covered when the new owner repaved the parking lot in 2000. A geophysical survey and potholing of the asphalt was conducted unsuccessfully to try and locate the covered well. URS retained Cascade Drilling of Woodinville, Washington in September 2002 to replace monitoring well MW-2 near the original location. Three additional groundwater monitoring wells were installed on and adjacent to the property. Two wells (MW-3 and MW-4) are located downgradient and one (MW-5) is located upgradient of the excavation near the northwest corner of the parking lot. Downgradient wells (MW-3 and MW-4) are intended to assess and monitor the downgradient extent of TPH-G and BTEX in groundwater. Well MW-5 is intended to provide background groundwater quality, and groundwater elevation data that was used to assess the Site groundwater flow gradient and direction. As part of the planned monitoring, groundwater samples were collected from four of the five monitoring wells eight times from October 2001 through December 2003. Only six samples were collected from the replacement well MW-2, which was installed between the second and third sampling events. Each sample was analyzed for gasoline range hydrocarbons and BTEX using methods NWTPH-Gx and EPA 8021B. The analyses were performed by ESN Northwest, an Ecology accredited laboratory.

Based on groundwater levels in the existing wells and elevation data from nearby gasoline stations with leaking USTs, the groundwater flow at the Site was inferred to be southeasterly (URS, 2000a,b). Groundwater elevations measured during the monitoring confirm that the flow is generally in a southeasterly direction.

Samples from each well were analyzed for the gasoline-range TPH and BTEX constituents. TPH-G and BTEX were either not detected or detected at concentrations below the MTCA Method A groundwater cleanup levels in all samples from wells MW-3, MW-4, and MW-5. TPH-G and/or one or more BTEX constituents was detected at concentrations above the MTCA Method A groundwater cleanup levels in all samples from wells MW-1 and MW-2. TPH-G concentrations have decreased significantly at well MW-1 and have been relatively consistent at well MW-2. A slight decrease at well MW-2 is suggested by the December 2003 results. It should be noted that TPH-G was reported as non-detected in both the MW-1 and MW-2 samples in March 2003. The laboratory was contacted regarding this anomalous result but indicated that it was correct. However, based on the prior and subsequent sample results it is apparent that this was not a representative analytical result. Ethylbenzene and xylenes concentrations in MW-1 increased through 2001-2002 but have decreased consistently through 2003. Benzene and toluene concentrations have increased slightly but been relatively consistent. At replacement well MW-2, BTEX concentrations have decreased significantly since the initial (September 2002) sample from this well, except benzene, which has been relatively consistent in 2003 since an initial increase in 2002.

Groundwater monitoring was conducted from October 2001 through December 2003 in general accordance with the Ecology approved Groundwater Monitoring Plan (URS, 2000b). Based on the results of six to eight groundwater monitoring events, TPH-G and BTEX concentrations have either decreased or been relatively consistent since 2001 in the two on-Site wells, MW-1 and MW-2, located adjacent and downgradient of the former petroleum contaminated soil cleanup areas (URS, 2002). Petroleum constituents have not been detected in groundwater samples from upgradient well MW-5 and downgradient wells MW-3 and MW-4 located approximately 70-100 feet from wells MW-1 and MW-2, respectively.

The uppermost groundwater at the Site is predominantly situated in a dense silty sand unit. Based on URS' experience in the Puget Sound area, soils of this type have a typical hydraulic conductivity (K) on the order of 10^{-3} cm/s. Assuming the average gradient (dh/dl) of 0.020 and a hydraulic conductivity of 1×10^{-3} cm/s (or 2.8 ft/day), the average linear velocity (v) of groundwater flow would be approximately 0.06 ft/day where $v = K/n(dh/dl)$ and the effective porosity (n) is assumed to be 1.0. Based on this rate, groundwater travel on the order of 45 feet is estimated for the 26 month period of groundwater monitoring. Based on the estimated groundwater flow rate outlined above and 70 to 100 foot distance between wells MW-1 and MW-2 and corresponding downgradient wells MW-3 and MW-4, a three to five year travel time is expected for contaminated groundwater between these wells assuming no natural attenuation. Given that the release of petroleum hydrocarbons occurred prior to the voluntary soil cleanup action in summer 2000 (URS, 2000a) and could have been 35 years or more old (the former gasoline stations were last active in 1946 and 1969), the two groundwater plumes appear to have reached relative equilibrium between contaminant migration and natural attenuation. This is a common phenomenon for petroleum hydrocarbon plumes, particularly where most of the contaminant source has been removed such as the property (Chapelle et al., 2003) and the contaminated groundwater is in glacial soils with moderate hydraulic conductivity. Contaminant concentrations within the groundwater plumes generally appear to be decreasing and should continue to do so due to natural attenuation processes. Therefore, it was URS' opinion that there is a low potential for significant future migration and continued groundwater monitoring is not warranted.

Ecology agreed with a conditional point of compliance for soil (Interim 'No Further Action' letter for soil June 24, 2002) and groundwater and issued a letter on July 14, 2004 that accepted the cessation of groundwater monitoring and the closure of the monitoring wells.

2.4 Cleanup Levels

The UST closure and Voluntary Cleanup Action reported herein were implemented to remove subsurface soils containing gasoline range and BTEX above the MTCA Method B soil cleanup level as outlined in the Washington Department of Ecology (Ecology) January 1997 interpretive and Policy Statement — Cleanup of Total Petroleum Hydrocarbons (TPH) and November 1998 update (Interim TPH Policy).

Soil cleanup levels for the project were established consistent with the Washington MTCA. Because the Edmond Meany Hotel is a commercial facility, the MTCA Method B soil cleanup

level for commercial property per the Interim TPH Policy was selected as the appropriate cleanup level. A preliminary evaluation was performed using analytical data from the June 2000 investigation, the Interim TPH Policy and subsequent Ecology memorandum titled Interim TPH Policy Update dated November 17, 1998. As outlined in the update memorandum, using conservative default values results in a commercial Method B TPH soil cleanup level of 9,600 mg/kg TPH for the soil ingestion value if BTEX are not present. During the soil cleanup action, URS used the relative percentages of aromatic and aliphatic TPH for the two samples from the June 2000 investigation with the highest TPH as gasoline concentrations (900 mg/kg for the north excavation area and 1300 mg/kg in the south excavation area) to calculate whether a post-excavation sample analysis was below the MTCA Method B soil cleanup level (i.e. calculated cancer risk of less than 1×10^{-6} and the hazard index for soil-to-groundwater and soil ingestion pathways were less than 1.0). Soils with combined TPH and BTEX concentrations that were calculated to be above these values were considered to warrant cleanup. Upon completion of the cleanup action, three post-excavation soil samples (two from the south excavation and one from the north excavation) with the highest TPH concentrations were further analyzed for extractable and volatile petroleum hydrocarbons (EPH and VPH) using Ecology's specified methodology, and these analytical results were used to check the field calculations.

2.5 Restrictive Covenant

Based on the Site use, surface cover and calculated cleanup levels, it was determined that the Site was eligible for a 'No Further Action' determination if a Restrictive Covenant was recorded for the property. A Restrictive Covenant was recorded for the Site in 2002 which imposed the following limitations:

Section 1. No groundwater may be taken for any use from the Property without prior written approval from Ecology. The Owner shall not alter, modify, or remove the existing Hotel in any manner that may result in the release or exposure to the environment of the contaminated soil within the Restricted Zones or create a new exposure pathway without prior written approval from Ecology. The contaminated soil that is not accessible due to the existing Hotel will be addressed if the existing Hotel is removed in the future. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil within the Restricted Zones, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the Restricted Zones include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike, or similar item, bulldozing, or earthwork.

Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Actions and continued protection of human health and the environment is prohibited without prior written approval from Ecology.

Section 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Actions, or creates a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 4. The Owner of the Property must give thirty (30) days advance written notice to Ecology of the Owners intent to convey any interest in the Property. No conveyance of title,

easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Actions.

Section 5. The Owner must restrict leases to uses and activities consistent with this Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Actions: to take samples, to inspect remedial actions conducted at the Property, and to inspect records that are related to the Remedial Actions.

Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after prior notice and opportunity for comment, concurs.

The Restrictive Covenant is available as Appendix 6.4.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

The Restrictive Covenant for the Site was recorded and is in place. This Restrictive Covenant prohibits activities that will result in the release of contaminants at the Site without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenant. This Restrictive Covenant serves to ensure the long term integrity of the remedy.

Based upon the Site visit conducted on June 30, 2010, the asphalt cover (remedy) at the Site continues to eliminate exposure to contaminated soils by ingestion and contact. The asphalt appears in satisfactory condition and no repair, maintenance, or contingency actions have been required. The Site is still operating as a hotel. A photo log is available as Appendix 6.5.

Soils and groundwater with TPH concentrations higher than MTCA cleanup levels are still present at the Site. However, the remedy (asphalt surface) prevents human exposure to this contamination by ingestion and direct contact with soils. The Restrictive Covenant for the property will ensure that the contamination remaining is contained and controlled.

3.2 New scientific information for individual hazardous substances for mixtures present at the Site

There is no new scientific information for the contaminants related to the Site.

3.3 New applicable state and federal laws for hazardous substances present at the Site

The cleanup at the Site was governed by Chapter 173-340 WAC. WAC 173-340-702(12) (c) [2001 ed.] provides that,

“A release cleaned up under the cleanup levels determined in (a) or (b) of this subsection shall not be subject to further cleanup action due solely to subsequent amendments to the provision in this chapter on cleanup levels, unless the department determines, on a case-by-case basis, that the previous cleanup action is no longer sufficiently protective of human health and the environment.”

Although cleanup levels changed for petroleum hydrocarbon compounds as a result of modifications to MTCA in 2001, contamination remains at the Site above the new MTCA Method A and B cleanup levels. Even so, the cleanup action is still protective of human health and the environment. A table comparing MTCA cleanup levels from 1991 to 2001 is available below.

Analyte	1991 MTCA Method A Soil Cleanup Level (ppm)	2001 MTCA Method A Soil Cleanup Level (ppm)	1991 MTCA Method A Groundwater Cleanup level (ppb)	2001 MTCA Method A Groundwater Cleanup Level (ppb)
Cadmium	2	2	5	5
Lead	250	250	5	15
TPH	NL	NL	1000	NL
TPH-Gas	100	100/30	NL	1000/800
TPH- Diesel	200	2000	NL	500
TPH-Oil	200	2000	NL	500

NL = None listed

3.4 Current and projected Site use

The Site is currently used for residential (hotel) purposes. There have been no changes in current or projected future Site or resource uses.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection below selected Site cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

4.0 CONCLUSIONS

The following conclusions have been made as a result of this periodic review:

- The cleanup actions completed at the Site appear to be protective of human health and the environment.
- Soils and groundwater cleanup levels have not been met at the standard point of compliance for the Site; however, the cleanup action has been determined to comply with cleanup standards since the long-term integrity of the containment system is ensured, the requirements for containment technologies are being met, and groundwater contamination is believed to remain on the property.
- The Restrictive Covenant for the property is in place and continues to be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this periodic review, the Department of Ecology has determined that the requirements of the Restrictive Covenant continue to be met. No additional cleanup actions are required by the property owner. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the remedy is maintained.

4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 REFERENCES

1. UST Closure and Site Assessment Report, Starwood Lodging Corporation, Meany Tower Hotel, 4507 Brooklyn Avenue, Seattle, Washington, by Dames & Moore, dated March 31, 1997;
2. UST Removal and Voluntary Cleanup Action, Edmond Meany Hotel, 4507 Brooklyn Avenue NE, Seattle, Washington, by URS Dames & Moore, dated August 29, 2000;
3. Groundwater Monitoring Plan, Edmond Meany Hotel, Seattle, Washington, by URS Dames & Moore, dated October 2, 2000;
4. 2001-2003 Groundwater Monitoring Report, Former Edmond Meany Hotel, Seattle, Washington, by URS, dated July 7, 2004;
5. 2002 Restrictive Covenant.
6. Ecology, 2010 Site Visit.

6.0 APPENDICES

6.1 Vicinity Map



0 0.5 1.0

Approximate Scale in Miles

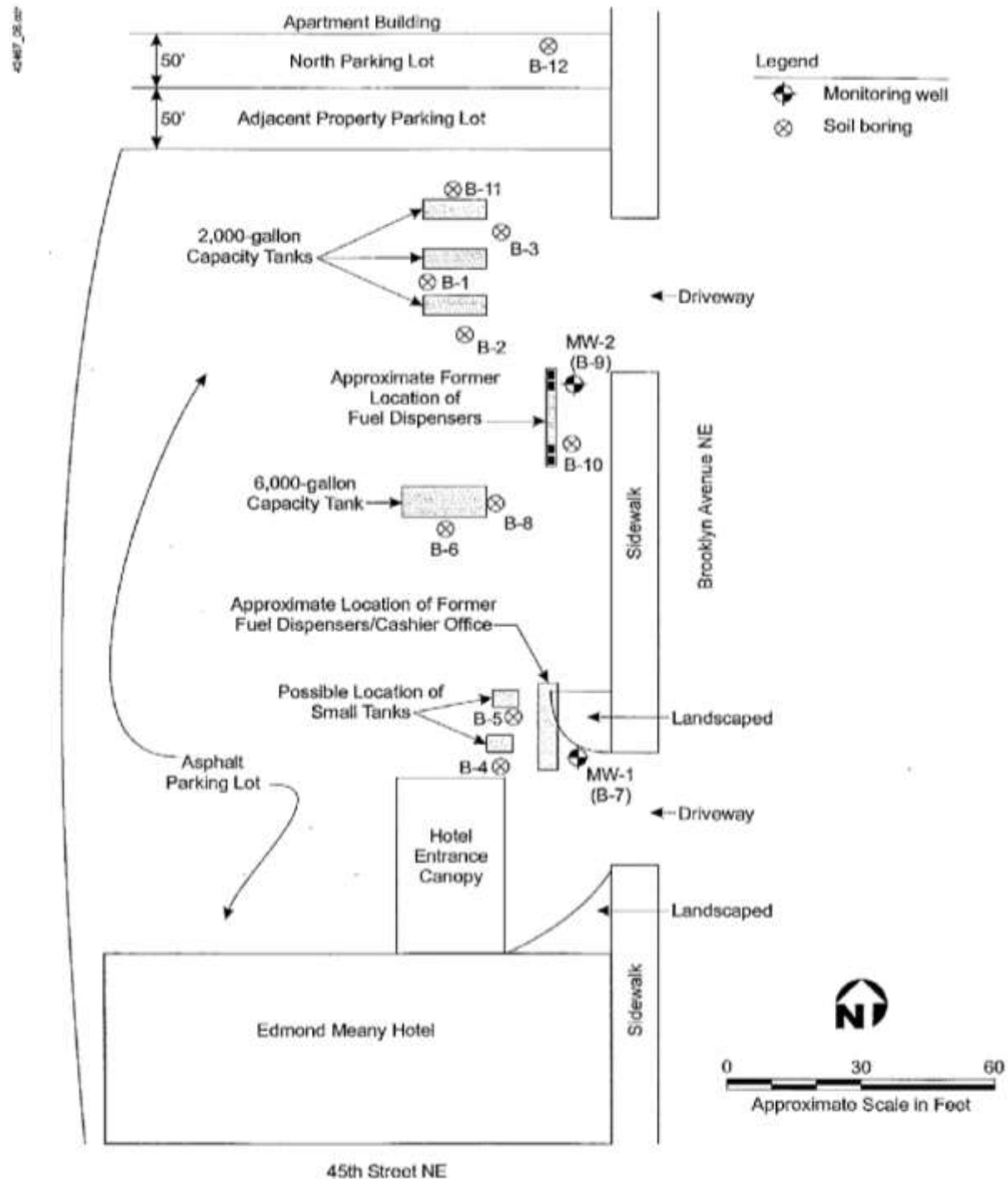
Job No. 33749103

URS

Figure 1
SITE LOCATION MAP

Starwood - Former Edmond Meany Hotel
Seattle, Washington

6.2 Site Plan



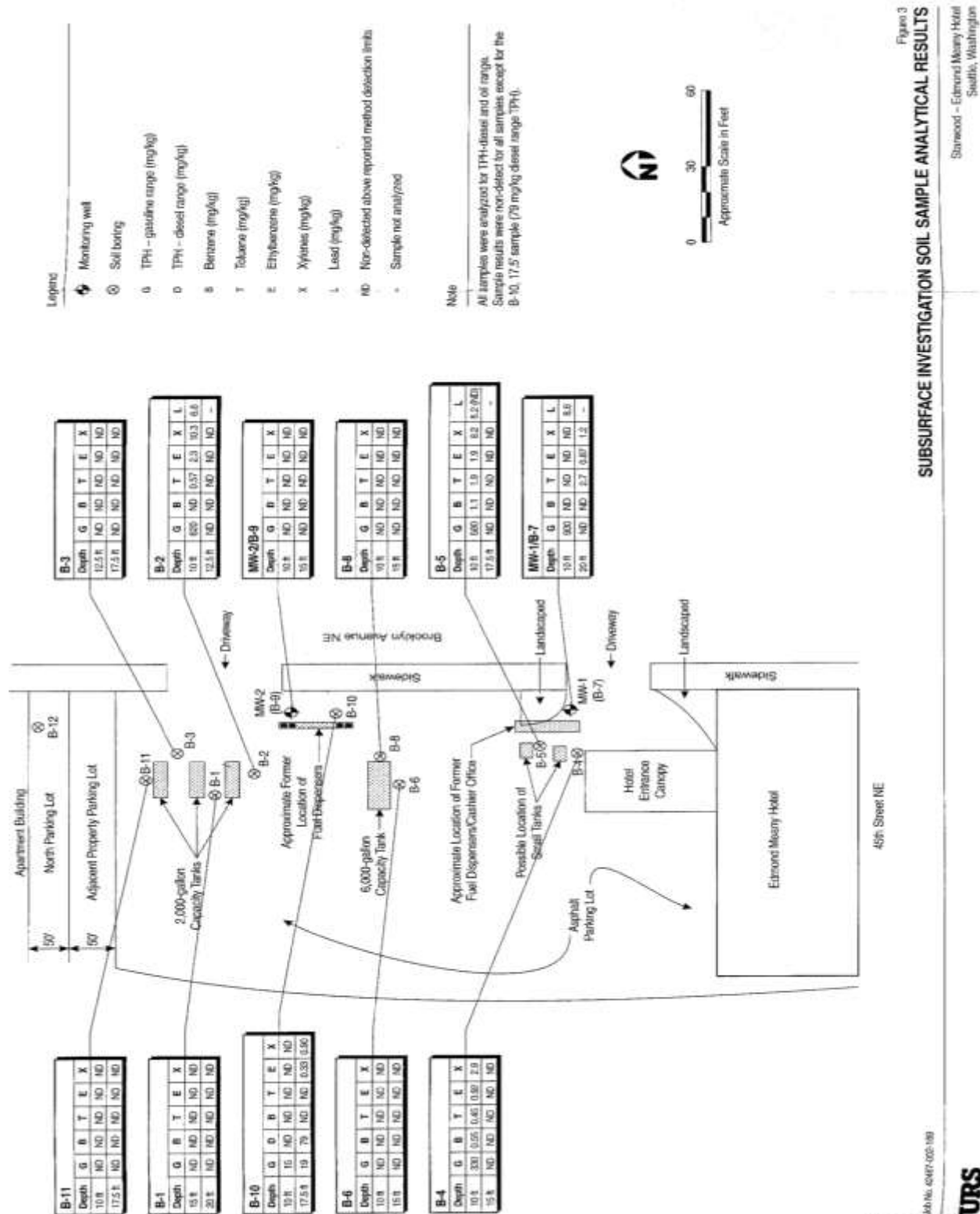
Job No. 42467-002-189

Figure 2
SUBSURFACE INVESTIGATION SITE PLAN

URS

Starwood – Edmond Meany Hotel
Seattle, Washington

6.3 TPH-Dx Concentration Map



6.4 Environmental Covenant

When Recorded, Return to:

HILLIS CLARK MARTIN & PETERSON, P.S.
Attention: Howard F. Jensen
500 Galland Building
1221 Second Avenue
Seattle, WA 98101-2925



RESTRICTIVE COVENANT

Reference Number(s) of Documents Assigned or Released: n/a

Grantor(s):

1. WASHINGTON HOTEL, L.L.C.

Grantee(s):

1. STATE OF WASHINTON, DEPARTMENT OF ECOLOGY

Legal Description (abbreviated form, i.e., lot, block, plat or section, township, range):

PORTION OF LOTS 10-12, BLOCK 9, ASSESSOR'S PLAT OF UNIVERSITY HEIGHTS

☒ Additional legal on EXHIBIT A of document

Assessor's Property Tax Parcel/Account Numbers: 881740-0055

2002 030 4002902

Washington Hotel, L.L.C.
4507 Brooklyn Avenue NE
Seattle, Washington 98105

RESTRICTIVE COVENANT

This Declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g), and WAC 173-340-440 by Washington Hotel, L.L.C., its successors and assigns, and the Washington State Department of Ecology, its successors and assigns.

Abbreviated Legal Description: Portion of Lots 10-12, Block 9, Assessor's Plat of University Heights.

Legal Description of Property: See Exhibit A.

Tax Parcel I.D. #: 881740-0055

2002 030 4002902

RESTRICTIVE COVENANT

Washington Hotel, L.L.C./Edmond Meany Hotel

This Declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Washington Hotel, L.L.C., its successors and assigns (hereafter "Washington Hotel"), and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

RECITALS

2002 030 4002902
A. Washington Hotel is the fee owner of real property located at 4507 Brooklyn Avenue NE, Seattle, in the County of King, State of Washington (hereafter "Property"), that is subject of this Restrictive Covenant. The legal description of the Property is attached hereto as Exhibit A, which is hereby incorporated by reference. The University Tower Hotel, formerly the Edmond Meany Hotel (hereafter "Hotel"), is currently located on the Property.

B. A series of independent remedial actions (hereafter "Remedial Actions") were conducted at the Property between July 1996 and June 2000. During the course of conducting the Remedial Actions, representatives of Starwood Hotels and Resorts Worldwide, Inc., the former owner of the Property, determined that it was technically infeasible, impracticable, and cost-prohibitive to excavate, remove, or treat three discrete and relatively small areas of soil underneath the Property ("Restricted Zones") containing petroleum hydrocarbons in concentrations which exceed the Model Toxics Control Act Method A Residential Cleanup Level for soil established under WAC 173-340-740. All three Restricted Zones are located between the south wall of the Hotel and NE 45th Street, in the vicinity of a former heating oil

RESTRICTIVE COVENANT

PAGE 2 OF 7

tank. The locations of the Restricted Zones are shown on Exhibit B, which is hereby incorporated by reference. The Remedial Actions conducted at the Property are described in the following documents:

1. UST Closure and Site Assessment Report
Starwood Lodging Corporation
Meany Tower Hotel
4507 Brooklyn Avenue NE
Seattle, Washington
Dames & Moore, dated March 31, 1997
2. UST Removal and Voluntary Cleanup Action
Edmond Meany Hotel
4507 Brooklyn Avenue NE
Seattle, Washington
URS Dames & Moore, dated August 29, 2000

These documents are on file at Ecology's Northwest Regional Office.

C. This Restrictive Covenant is required because the Remedial Actions resulted in residual concentrations of petroleum hydrocarbon which exceed the Model Toxics Control Act Method A Residential Cleanup Level for soil established under WAC 173-340-740.

TERMS AND CONDITIONS

Washington Hotel makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

Section 1. No groundwater may be taken for any use from the Property without prior written approval from Ecology. The Owner shall not alter, modify, or remove the existing Hotel in any manner that may result in the release or exposure to the environment of the contaminated soil within the Restricted Zones or create a new exposure pathway without prior written approval from Ecology. The contaminated soil that is not accessible due to the existing Hotel will be

addressed if the existing Hotel is removed in the future. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil within the Restricted Zones, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the Restricted Zones include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing, or earthwork.

Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Actions and continued protection of human health and the environment is prohibited without prior written approval from Ecology.

Section 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Actions, or creates a new exposure pathway, is prohibited without prior written approval from Ecology.

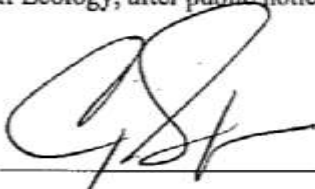
Section 4. The Owner of the Property must give thirty (30) days advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Actions.

Section 5. The Owner must restrict leases to uses and activities consistent with this Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Actions; to take samples, to inspect remedial actions conducted at the Property, and to inspect records that are related to the Remedial Actions.

Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.



Craig Schafer

February 19, 2002

[DATE SIGNED]

2002 030 4002902

STATE OF WASHINGTON

COUNTY OF KING

} ss.

On this day personally appeared before me Craig Schafer, to me known to be the member of Washington Hotel, L.L.C., the corporation that executed the foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 19 day of February, 2002.



Printed Name Max Lissak
NOTARY PUBLIC in and for the State of Washington,
residing at King County
My Commission Expires 12/05

RESTRICTIVE COVENANT

PAGE 5 OF 7

EXHIBIT A
LEGAL DESCRIPTION OF PROPERTY

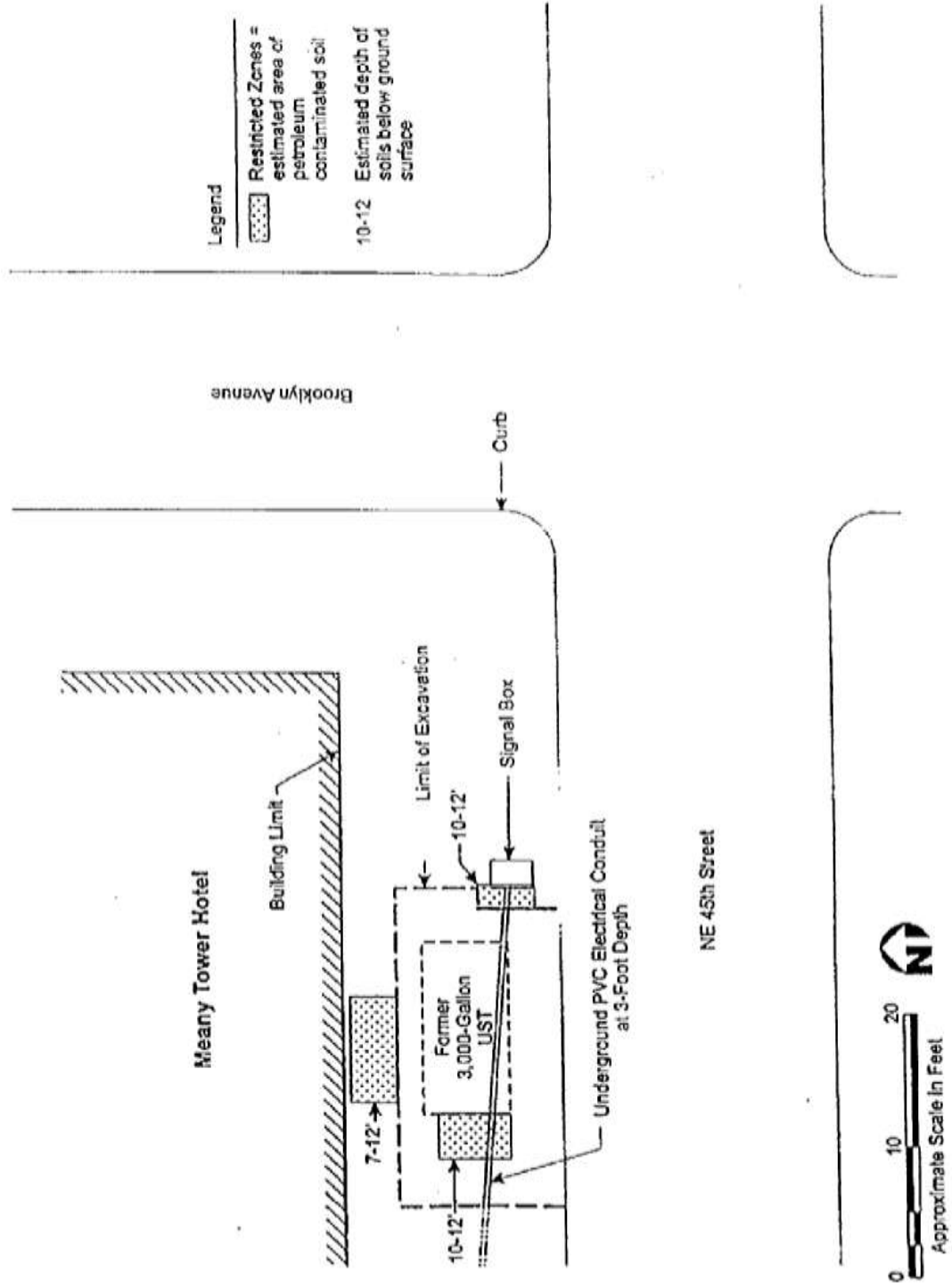
LOTS 11 AND 12 IN BLOCK 9, AND THAT PORTION OF LOT 10 LYING
WITHIN THE SOUTH 125 FEET OF SAID BLOCK 9, ALL IN THE
ASSESSOR'S PLAT OF UNIVERSITY HEIGHTS, ACCORDING TO PLAT
RECORDED IN VOLUME 16 OF PLATS AT PAGE(S) 70, RECORDS OF
KING COUNTY, WASHINGTON;

TOGETHER WITH THAT PORTION OF SECTION 8, TOWNSHIP 25
NORTH, RANGE 4 EAST, W.M., IN KING COUNTY, WASHINGTON,
BEING AN UNPLATTED TRACT OF LAND WHICH ADJOINS SAID
PREMISES ON THE WEST, DESCRIBED AS FOLLOWS: BEGINNING AT
THE NORTHWEST CORNER OF SAID SOUTH 125 FEET OF BLOCK 9;
THENCE WESTERLY ALONG THE WESTERLY PRODUCTION OF THE
NORTH LINE OF SAID SOUTH 125 FEET TO THE EAST LINE OF THE
ALLEY DEDICATED IN SHELTON'S ADDITION TO THE CITY OF
SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN
VOLUME 12 OF PLATS, PAGE 2, IN KING COUNTY, WASHINGTON;
THENCE IN A SOUTHERLY DIRECTION ALONG THE EAST LINE OF
SAID ALLEY TO A POINT ON THE WESTERLY PRODUCTION OF THE
SOUTH LINE OF LOT 12 OF SAID BLOCK 9; THENCE EAST ALONG SAID
PRODUCED LINE TO THE SOUTHWEST CORNER OF LOT 12 OF SAID
BLOCK 9; THENCE NORTH ALONG THE WEST LINE OF SAID BLOCK 9
TO THE POINT OF BEGINNING.

2002 030 4002902

**EXHIBIT B
LOCATION OF RESTRICTED ZONES**

2002 030 4002992



6.5 Photo log

Photo 1: Hotel entrance on Brooklyn Avenue NE - from the east



Photo 2: Hotel entrance from parking lot, one cleaned up area near bikes - from the north



Photo 3: Close-up of southernmost remediated area



Photo 4: Parking lot w/ additional areas of remediation – from the north

